

Kevin L. Shafer, P.E. Executive Director

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APR 11 2017

WATER ENFORCEMENT & COMPLIANCE ASSURANCE BRANCH, EPA, REGION 5

April 7, 2017

Mr. Dean Maraldo Water Enforcement and Compliance Assurance Branch U.S. Environmental Protection Agency 77 West Jackson Boulevard (WC-15J) Chicago, Illinois 60604

Re: Milorganite®

Dear Mr. Maraldo:

I hope your visit to the Milorganite® fertilizer manufacturing facility on March 14 was informative. As my staff described during your visit, the Milwaukee Metropolitan Sewerage District has a long history of leadership in water reclamation and resource recovery. The District is proud of the success of Milorganite® fertilizer and is fully committed to not only comply with all applicable requirements, but to make Milorganite® fertilizer the preferred choice of people seeking a fertilizer with slowly released nutrients from recycled materials.

As we said during your visit, the heat drying process is fully compliant with the requirements of 40 CFR 503. While we are waiting for your report regarding your visit, we are taking some immediate steps to improve our compliance demonstration for heat drying and to remove stored biosolids at South Shore.

Temperature Monitoring

During your visit, the District demonstrated that the temperature measurement location is 19 feet from the heated zone of the dryer and on the outside of a conveyor. These conditions make the measured temperatures lower than the actual temperatures of product leaving the dryers. Based on the high rate of recycle of the product through multiple dryers, along with the high rate of maintenance of product temperature of 176° F or higher, the probability that final product has reached 176° F is >99.9%.



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However, the District understands that it may benefit from improvements to how it demonstrates compliance with the heat drying requirements. Therefore, the District has:

- 1. commenced investigating the feasibility and cost of measuring air temperature and humidity at the dryer exit;
- 2. commenced investigating the feasibility and cost of measuring product temperature directly at the dryer exit;
- 3. commenced investigating revisions to control system logic to more accurately define the periods when a dryer is identified as "in service." Currently, periods identified as "in service" may include periods when a dryer is not actually producing product; and
- 4. increased the amount of manual temperature measurements in response to unexpected low temperatures and required more documentation of corrective actions by the operator.

To improve process control, the District has implemented more conspicuous low temperature alarms on the screens viewed by dryer operators. These screens display the temperatures from the conveyors downstream of each dryer. These alarms occur at 180° F and 176° F.

The District is interested in any examples you can provide regarding the technologies and practices implemented at other facilities to demonstrate compliance with the heat drying requirements.

Removal of Stored Biosolids

As indicated during your visit, the District operates plate and frame presses at the South Shore Water Reclamation Facility (South Shore) to process sludge when the Milorganite® fertilizer manufacturing facility is unavailable. Typically, the District tests these presses once per year. In addition, during September and October of 2016, an extended period of operation occurred in response to limited Milorganite® fertilizer production. During press operations, the District records the date of operation and the amount of cake produced. The District stores the cake inside a building at South Shore until enough accumulates to make land application or disposal practical.

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The following table shows the amounts of cake currently stored at South Shore.

Year	Month	Cake (dry tons)
2011	March	113
2013	June	87
2014	March	60
2015	June	60
2016	July	63
2016	September-October	736
Total		1,119

The District is planning land application of this material before the end of July 2017.

Fecal Coliform Sampling

The District has not changed the sampling point for fecal coliform because the current sampling point complies. We are interested in any recommendations in your report regarding the sampling point.

District staff is available at any time to answer any additional questions you may have. Thank you for your consideration.

Sincerely,

Kevin L. Shafer, P.E.

Executive Director

Milwaukee Metropolitan Sewerage District

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